

REMARKS

Claims 1-14 have been examined. Claims 15 and 16 have been added. Claims 1-16 are all the claims pending in the application.

Formal matters

Applicant thanks the Examiner for reviewing and initialing the documents in the information disclosure statements submitted on February 5, 2002 and September 10, 2004. However, Applicant notes that the Examiner has not indicated the status of the drawings or acknowledged receipt of a certified copy of the priority document. Applicant therefore respectfully requests the Examiner to accept the drawings as filed and to acknowledge claim to priority in the next Office Action.

Claim rejections -- 35 U.S.C. § 102

Claims 1-3, 5, and 12 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,975,899 to Faupel. Applicant respectfully disagrees with the Examiner's position.

For example, claim 1 includes the feature of a contact detecting means for detecting that the distal end of an excitation light emitting means has come into contact with a target tissue. The Examiner maintains that this feature is shown by Faupel at Figs. 1, 10, and 11A.

However, Figure 1 and its related description at col. 9, line 53 to col. 10, line 56 describes the preferred embodiment of Faupel. The embodiment includes a light source 20 which produces electromagnetic radiation, a target tissue 50, one or more emission optical fibers 52, filter 22, and a detector 56. The detector may detect fluorescent emission from fluorophores in the target tissue simultaneously with excitation of the tissue. (col. 10, lines 41-44). The detector is thus for detecting radiation emitted from the target tissue. Nowhere does Fig. 1 show or otherwise describe the claimed contact detecting means.

Figures 10 and 11A and their related description at col. 16, line 63 to col. 18, line 51 also do not show or describe a contact detector. The cited portions discuss arranging the fibers in a

pattern in order to make a complete measurement, and using a three dimensional approach. Two dimensions involve x and y coordinate placement of the fibers with the third dimension being a spectral component. In other words, measurements are taken over multiple wavelengths of emitted radiation. Fig. 10 shows a light source 20 and filter assembly 22 which illuminate target tissue 50. The illumination uses excitation optical fibers 116a and detection fibers 116b, which are preferably arranged in pairs. (col. 17, lines 24-26). Using this structure, a first measurement may be taken to detect fluorescent characteristics of the tissue, and then subsequently, an additional measurement may be taken to detect scattering characteristic of the tissue.

Measurements may also be taken in cycles, where one cycle includes measurement of fluorescent characteristics and a measurement of reflection characteristics. Also disclosed is a first area adjusting unit 560 and a field area processing unit 570. These structures divide the target tissue into a plurality of field areas 580 for measurement. (see Figs. 11B & 11C). The divisions could be based on visual inspection or results of previous testing and could be programmed into the apparatus. Thus, these field areas are only spatial locations on the target tissue. This disclosure thus also does not show the claimed contact detection means for detecting that a distal end of the excitation light emitting means has come into contact with the target tissue.

For the above reasons, claim 1 is patentable over Faupel. Claims 2-3 are patentable based on their dependency.

Claim 5 recites a similar feature to claim 1, in that a distance parameter detecting means detects a parameter correlating a distance between the distal end and the target tissue. The cited portions of Faupel above also include no disclosure relevant to this feature. Therefore, claim 5 is also patentable over Faupel. Claim 12 is patentable based on its dependency.

Claim rejections -- 35 U.S.C. § 103

Claims 4, 6-11, 13 and 14 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Faupel in view of U.S. Patent No. 6,462,770 to Cline. Applicant respectfully disagrees with the Examiner's position.

Claim 4 depends from independent 1 and claims 6-11, 13 and 14 depend from independent claim 5. For the reasons discussed above, independent claims 1 and 5 are patentable over Faupel. Cline does not cure the deficiencies of Faupel because Cline includes no teachings relevant to a contact detection means or a distance parameter detecting means. In fact, Cline does not discuss contact with tissue at all. Therefore, the remaining claims are patentable over the Faupel and Cline combination for at least the reasons discussed above.

New claims

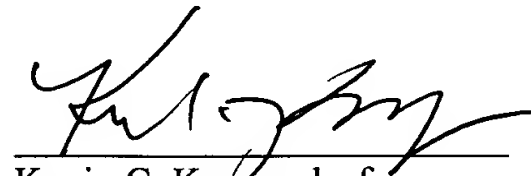
Applicant has added new dependent claims 15 and 16 in order to claim additional features of the invention.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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23373

CUSTOMER NUMBER

Date: June 30, 2006